

NEW LARVAL FOODPLANT RECORDS FOR BUTTERFLIES (LEPIDOPTERA) IN NORTHERN QUEENSLAND

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Abstract

New foodplant records are provided for 33 species of butterflies from northern Queensland.

Introduction

Lists of foodplants for butterflies from northern Queensland have been presented in several recent papers (Valentine 1988, Sankowsky 1991, Braby 1995, 1996). The following records are based on field collecting and rearing of the early stages, by the author, intermittently during 1993-97 but predominantly during 1993.

HESPERIIDAE

Badamia exclamationis (Fabricius)

Several young larvae were collected and reared to adults from characteristic shelters on small plants of *Rhyssopteris timoriensis* (Malpighiaceae), at Mt Stuart near Townsville and also near Coen. At the latter locality larvae were found together with those of *Allora doleschallii doleschallii* (Felder) and *Hypochrysops polycletus rovena* Druce. Previously the only known foodplants for this species in Australia were *Terminalia catappa* L. and *T. oblongata* F. Muell. (Combretaceae).

Chaetocneme beata (Hewitson)

Adults were reared from first instar larvae collected from large trees of *Cryptocarya microneura* Meissner (Lauraceae), growing in gardens at Edge Hill, Cairns. Larvae were transferred to netted sleeves on *Neolitsea dealbata* (R. Br.) Benth. prior to the completion of their development, with adults emerging in February and early March. Although no plants of this species could be located in adjacent rainforest, it has a known native distribution from Cairns to southern New South Wales (G. Sankowsky, pers. comm.). In January 1987, numerous larvae of *C. beata* were collected from *C. microneura* near Macquarie Pass, west of Wollongong, New South Wales.

Chaetocneme porphyropis (Meyrick & Lower)

On the lower slopes of mountains just west of Bartle Frere, near Babinda, all immature stages were collected fairly commonly from *Endiandra compressa* C. White (Lauraceae) and less so from the foliage of *Litsea leefeana* (F. Muell.) Merr. and *Neolitsea dealbata*, during most months of the year. *Cryptocarya grandis* Hyland (Lauraceae) appears to be the preferred foodplant of this species at El Arish, Mission Beach and Innisfail, where larvae are located generally in deep shade within the coastal rainforests. *E. compressa* and *C. grandis* are new foodplant records for this species.

Netrocoryne repanda expansa Waterhouse

Numerous eggs and early instar larvae were observed but not collected from small plants of *Litsea breviumbellata* Allen (Lauraceae) growing proximal to watercourses adjacent to the Olive River, Cape York Peninsula, during February, 1996. As many as seven larval shelters were noted on a single leaf. At Kuranda, several empty larval shelters were located on the large leaves of *Litsea bindoniana* (F. Muell.) F. Muell. Both *L. breviumbellata* and *L. bindoniana* are newly recorded foodplants for *N. repanda*, although Wood (1987b) recorded this taxon feeding on 'a number of laurel species' at Coen and Iron Range, Cape York Peninsula.

PAPILIONIDAE*Graphium sarpedon choredon* (C. & R. Felder)

Eggs and larvae were collected and reared to adults on the young, purple-red new growth of *Litsea binedoniana* (Lauraceae) at Flying Fish Point, near Innisfail in January 1994. The early stages of this taxon may be found utilising the new growth of many laurel species in NE Qld.

Graphium macfarlanei macfarlanei (Butler)

Near Diwan, approximately 20 km north of Daintree, adults were reared from eggs and larvae collected on *Rollinia delicosa* Safford (Annonaceae), a species introduced from Brazil. Also near Diwan and at Cape Tribulation, mature larvae were collected during January 1997, together with those of the more numerous *Graphium agamemnon ligatum* (Rothschild), from *Desmos* sp. (Annonaceae). Only one larva was reared to adult, the remainder being parasitised. These represent additional foodplant records for *G. macfarlanei*, the latter being the first recorded native foodplant in Australia.

PIERIDAE*Elodina queenslandica kuranda* De Baar & Hancock

A small number of adults were reared from eggs collected on the climbing tips of *Capparis sepiaria* L. (Capparaceae) along the Mowbray River, about 15 km SWW of Port Douglas, at Bloomfield, Kuranda and approximately 15 km SW of Gordonvale. Larvae of this species and *E. walkeri* Butler feed only on the pale new growth of *C. sepiaria*, which often grows high into the rainforest canopy. This plant has been recorded as a host for nominotypical *E. queenslandica* De Baar & Hancock (De Baar 1988; De Baar and Hancock 1993).

Elodina walkeri Butler

A male was reared in July from eggs collected from the young growth of *Capparis sepiaria* growing along the Mowbray River, near Port Douglas.

Cepora perimale scyllara (W.S. Macleay)

Along the Mowbray River near Port Douglas and at Bloomfield, eggs and early instar larvae were collected and reared to adult on *Capparis sepiaria*.

Catopsilia scylla etesia (Hewitson)

Many eggs and young larvae were located and reared to adults on the foliage of *Senna surratensis* ssp. *retusa* J. Vogel (Caesalpinaceae), throughout the wet season, 65 km south of Mt Garnet.

NYMPHALIDAE*Polyura sempronius sempronius* (Fabricius)

Two fourth instar larvae were found and raised to adult on the foliage of the climber *Jasminium aemulum* R. Br. (Oleaceae) at Palm Cove, north of Cairns. Two leaves were utilised for the shelter occupied by the mature larva.

Neptis praslini staudingereana de Niceville

At Palm Cove in January, females of this species were observed ovipositing on mature foliage of *Erycibe coccinea* (Bailey) (Convolvulaceae) and subsequently an adult was reared from larvae sleeved on this plant. In addition, a mature larva and pupa were collected from a small plant of *Briedelia penangiana* J.D.Hook (Euphorbiaceae) in rainforest near Mission Beach. The only previously recorded foodplant for this species was *Phylacium bracteosum* Benn. (Fabaceae) (Wood 1987a).

Pantoporia consimilis consimilis (Boisduval)

Numerous specimens were reared throughout the year from immature stages collected from *Dalbergia candenatensis* (Dennst.) Prain (Fabaceae) near Cairns, Daintree, Innisfail and Mission Beach.

LYCAENIDAE*Hypochrysops pythias euclides* Miskin

Near El Arish a few adults of this taxon were reared from larvae collected on the undersides of the large leaves of *Trichospermum pleiostigma* (F.Muell.) Burret (Tiliaceae) but they are much more abundant on *Commersonia bartramia* (L.) Merr. (Sterculiaceae). The former is a new foodplant record for this species.

Hypochrysops polycletus rovena Druce

Eggs and larvae were collected on several occasions just west of Cairns, Cooktown and near Coen on *Rhysopteris timoriensis* (Malpighiaceae), during the wet season. Larvae were sometimes attended by small ants. Recently in the Moluccas, Indonesia, pupae of the nominotypical subspecies were located in debris beneath the foodplant and in captivity larvae of *H. p. rovena* pupated in similar situations.

Hypochrysops narcissus narcissus (Fabricius)

Approximately 10 km south of Mossman and at the Coconuts, near Innisfail, many larvae and pupae were found on *Avicennia eucalyptifolia* (Valeton) Mold. (Verbenaceae). Also near Mossman and just north and south of Cooktown larvae and pupae were taken from *Lumnitzera racemosa* Willd.

(Combretaceae). At Mossman, this taxon was also reared from *Bruguiera exaristata* Ding Hou (Rhizophoraceae). Near Cairns and Mossman, adults were reared from *Rhizophora stylosa* Griffith (Rhizophoraceae) and at Cooktown from *Diplatia tomentosa* Barlow (Loranthaceae).

The above foodplants all represent new records for *H. narcissus* and most specimens were reared between April and August. Near Mossman, many pupae of *H. n. narcissus* were once found within excavated chambers of *Myrmecodia* sp. (Rubiaceae), growing on the mangrove foodplants, once occupied by the early stages of *Hypochrysops apollo* Miskin.

Hypochrysops miskini miskini (Waterhouse)

About 2 km east of Paluma, larvae were located in curled leaves of *Commersonia bartramia* (Sterculiaceae) and reared to adults on that plant. In addition, larvae were found feeding on *Tetrasyandra pubescens* (Benth.) Perkins (Monimiaceae) at Bluewater Range, 31 km SW of Bluewater, and an adult male was subsequently reared. These represent additional foodplant records for this taxon and support the polyphagous status of this species proposed by Valentine and Johnson (1989).

Hypochrysops digglesii (Hewitson)

Larvae were located at Clifton Beach, north of Cairns, feeding upon *Dendrophthoe falcata* (L.f.) Ettingsh. (Loranthaceae). During the day they sheltered in curled leaves of the hostplant.

Hypochrysops cyane (Waterhouse & Lyell)

During January 1997, two first instar larvae of this species were discovered feeding on a sapling of *Acacia humifusa* Benth. (Mimosaceae) about 23 km north of Musgrave, Cape York Peninsula. The larvae were attended by a few small black ants (*Iridomyrmex* sp.) and sheltered within old feeding scars produced probably by mature larvae of *H. cyane*. When cut foodplant was exhausted, the larvae were given *Eucalyptus* sp. (Cow Bay) and raised to adults on that plant.

Philiris nitens nitens (Grose-Smith)

Macaranga sp. (Euphorbiaceae) is well known as a foodplant for both subspecies of *Philiris nitens* in northern Queensland. Larvae are invariably taken from *M. involucrata* (Wall.) Muell. Arg.; however on one occasion the author collected early stages from *Macaranga tanarius* (L.) Muell. Arg. near Mirriwinni, north of Innisfail.

Arhopala madytus Fruhstorfer

On the levees of the South Johnstone River, near Innisfail and near Trinity Beach, north of Cairns, larvae of this species were found commonly on the new growth of *Hibiscus tiliaceus* L. (Malvaceae). Larvae constructed crude shelters usually by joining parts of a leaf together with silk and pupae were found in similar situations.

Arhopala centaurus centaurus (Fabricius)

Adults were reared from early stages collected on saplings of *Corymbia tessularis* (F. Muell) (Myrtaceae) at Cairns during March.

Ogyris aenone Waterhouse

At Cooktown, larvae and pupae of this taxon and *Hypochrysops narcissus* were found together in abandoned bird's nests situated in the clumps of *Diplatia tomentosa* (Loranthaceae) growing on *Melaleuca* sp. (Myrtaceae). Immature stages of *O. aenone* were also collected from *D. tomentosa* at Cow Bay, near Cape Tribulation, Mossman and Port Douglas. The larvae apparently favoured the distinctive flowers of this mistletoe.

Ogyris zosine typhon Waterhouse & Lyell

At Clifton Beach, north of Cairns, pupae of this species were taken gregariously from under bark surrounding *Dendrophthoe falcata* (Loranthaceae) parasitising *Lophostemum* sp. (Myrtaceae).

Jalmenus eichhorni Staudinger

Numerous pupae of this taxon were collected just north of Musgrave, Cape York Peninsula and about 65 km south of Mt Garnet from small plants of *Acacia humifusa* (Mimosaceae). At the latter locality, early stages of this species were taken on adjacent plants to those supporting *Jalmenus pseudictinus* Kerr & Macqueen.

Jalmenus pseudictinus Kerr & Macqueen

Several larvae and pupae were collected in February 1994 from saplings of *Acacia humifusa* (Mimosaceae), approximately 65 km south of Mt Garnet.

Hypolycaena phorbas phorbas (Fabricius)

Immature stages were collected commonly from the new growth of *Smilax australis* R. Br. (Smilacaceae) at Ella Beach, south of Innisfail and at Tully Heads.

Anthene seltuttus affinis (Waterhouse & Turner)

At Loth Park, Innisfail, numerous pupae were found clustered on larger stems of *Arytera pauciflora* S. Reyn. (Sapindaceae) and larvae on the distinctive pink new growth of this plant.

Candalides margarita margarita (Semper)

Eggs and larvae were found at Cairns and just east of Paluma on *Dendrophthoe falcata* (Loranthaceae). Larvae are well camouflaged on the young shoots and buds of the mistletoe upon which they feed.

Candalides helenita helenita (Semper)

At Bellenden Kerr, west of Babinda, larvae were found together with those of *Jamides aleuas coelestis* (Miskin) on the fresh growth of *Arytera pauciflora* (Sapindaceae). Exuviae were located at the base of the foodplant amongst leaf litter.

Danis danis serapis Miskin

Around Cairns the preferred foodplant of this species appears to be *Connarus conchocarpus* F. Muell. (Connaraceae), while in wetter districts *Rourea brachyandrya* F. Muell. (Connaraceae) is apparently the primary foodplant. Larvae feed only on the red new growth of the latter species and develop very rapidly. The latter foodplant is a new record for this taxon.

Jamides phaseli (Mathew)

At Trinity Beach and at Bingil Bay, near Mission Beach, larvae were collected from the large purple flowers of *Ipomoea pes-caprae* (L.) R. Br. (Convolvulaceae), a spreading legume which grows commonly on the berms of beaches and dunes.

Megisba strongyle nigra (Miskin)

At Trinity Beach, larvae were taken and reared to adults during February from flower buds of *Allophylus cobbe* (L.) Blume (Sapindaceae). In addition, along creek margins near Daradgee and Eubenangee, just north of Innisfail, eggs and larvae were collected from the blossom of *Macaranga inamoena* Benth. (Euphorbiaceae), during January and February.

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